

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-13 (Canceled).

Claim 14 (New): A laser beam shaper to shape asymmetrical laser light beams generated by a light source in slow and fast axis directions, the slow axis being in a plane of a p-n junction of the beams, and the fast axis being in a plane perpendicular to the plane of the p-n junction of the beams, the laser beam shaper comprising:

a first focusing element comprising an acylindrical lens located at a distance from the light source such that the beams in the direction of the fast axis are imaged directly onto an output plain of a beam shaper element;

a first multi-segment element comprising a multi-edged prism, wherein surface segments of the first multi-segment element refract the asymmetrical light beams such that the refracted beams propagate non-uniformly in the direction of the fast and slow axis without overlapping with one another; and

a second multi-segment element comprising a set of glass plates having input and output surfaces,

wherein the first and second multi-segment elements separate and redistribute the light beams, and image the light source, in the direction of the slow axis.

Claim 15 (New): The laser beam shaper according to claim 14, wherein the acylindrical lens comprises a collimator.

Claim 16 (New): The laser beam shaper as claimed in claim 14, wherein the second multi-segment element causes the respective propagation directions of the refracted beams to become uniform.

Claim 17 (New): The laser beam shaper as claimed in claim 14, wherein a surface of the first multi-segment element comprise segments shaped to compensate for a distortion of the beams caused by a bending of the light source.

Claim 18 (New): The laser beam shaper as claimed in claim 14, wherein the first multi-segment element is positioned at a first position when the light beams do not overlap with each other after passing through the first focusing element, and the first position is located nearer to the first focusing element than it is to the second multi-segment element, and

wherein the first multi-segment element is positioned at a second position when the light beams overlap with each other after passing through the first focusing element, and the second position is located further away from the first focusing element than is the first position.

Claim 19 (New): The laser beam shaper as claimed in claim 14, wherein the beams propagating from the first multi-segment element comprise outer beams and inner beams, the outer beams being relatively closer to outer edges of the first multi-segment element than are the inner beams, and

surfaces of the segments of the first multi-segment element direct the beams such that the outer beams propagate in the direction of the slow axis and the inner beams propagate in the direction of the fast axis.

Claim 20 (New): The laser beam shaper as claimed in claim 18, wherein when the first multi-segment element is positioned at the second position, a field curvature aberration of the first focusing element is corrected by surfaces of different segments of the first multi-segment element.

Claim 21 (New): The laser beam shaper as claimed in claim 18, wherein when the first multi-segment element is positioned at the first position, a field curvature aberration of the first focusing element is corrected by the input surfaces of the second multi-segment element.

Claim 22 (New): The laser beam shaper as claimed in claim 14, wherein the output surfaces of the second multi-segment element are generally conical, and the beams propagating through the second multi-segment element are imaged in the direction of the slow axis to the output plane of the beam shaper element.

Claim 23 (New): The laser beam shaper as claimed in claim 14, wherein the output surfaces of any one of the first focusing element, first multi-segment element, or second multi-segment element are shaped such that a tangent plane at any point on the outer surface of any one of the respective first focusing element, first multi-segment element, or second multi-segment element does not intersect with another point on the outer surface of the same respective element.

Claim 24 (New): The laser beam shaper as claimed in claim 14, further comprising:

a third multi-segment element comprising a multi-edged prism;

a second focusing element comprising an acylindrical lens positioned between a second light source and the third multi-segment element; and

a polarizing or dichroic mirror,

wherein the beams generated by the two light sources after the first and third multi-segment elements are combined by the polarizing or dichroic mirror, directed through the second multi-segment element, and imaged onto the outer plain of the shaper element.

Claim 25 (New): The laser beam shaper as claimed in claim 24, further comprising:

third and fourth light sources to generate asymmetrical laser light beams in slow and fast directions, the third and fourth light sources each having equal wavelengths, wherein

the beams generated by the third and fourth light sources are combined by a polarizing mirror,

the beams generated by the first and second light sources have different wavelengths from each other and are combined by a dichroic mirror, and

the beams combined by the polarizing and dichroic mirrors are directed through the second multi-segment element and imaged onto the outer plain of the shaper element.

Claim 26 (New): The laser beam shaper as claimed in claim 14, wherein the first multi-segment element comprises a plurality of first multi-segment elements, each one of the multi-segment elements being configured to receive beams of light from one of a plurality of laser diodes and to direct the beams into the plate of the second multi-segment element, input surfaces of the plate unify beam propagation directions, and output surfaces of the plate focus the beams in the direction of the slow axis and direct them into common focus on the output plain of the beam shaper element.